

WHAT IS CLAIMED IS:

- 8/22/19
- 5 1. A semipermeable membrane support comprising,
a non-woven fabric including main fiber and binder fiber, both of which
are formed of synthetic resin fine fiber, the non-woven fabric being manufactured by
heating and pressing after paper making,
wherein the semipermeable membrane support has a ratio of a tensile
strength in a paper feeding direction to that in a width direction of 2:1 to 1:1.
- 10 2. A semipermeable membrane support according to claim 1, wherein the
main fiber is formed of polyester fiber having an average single fiber fineness of
0.6 to 8.9 decitex.
3. A semipermeable membrane support according to claim 1, wherein the
binder fiber is formed of polyester fiber having an average single fiber fineness of
0.6 to 8.9 decitex.
- 15 4. A semipermeable membrane support according to claim 1, wherein the
non-woven fabric has an air permeability of 0.5 to 7.0 cc/cm²/sec.
5. A semipermeable membrane support according to claim 1, wherein the
non-woven fabric has an average pore size of 5 to 15 μ m.
- sub 20 6. A semipermeable membrane support according to claim 1, wherein the
semipermeable membrane support has a capability of preventing from being bent in
the width direction during a manufacture of the semipermeable membrane.
7. A semipermeable membrane support according to claim 6, wherein the
semipermeable membrane support has the ratio of the tensile strength in the
paper feeding direction to that in the width direction of 1.5 : 1 to 1 : 1.
- 25 8. A semipermeable membrane support according to claim 1, wherein a
central line average roughness of a front surface of the semipermeable membrane

support is larger than that of a rear surface of the semipermeable membrane support by 15 % or more, and wherein the semipermeable membrane support has an anchor effect to a semipermeable membrane when the semipermeable membrane support is applied with the semipermeable membrane on the front surface thereof.

9. A method of manufacturing a semipermeable membrane support comprising the steps of:

preparing a dispersed and mixed solution by dispersing and mixing in a solution main fiber and binder fiber, both of which are formed of polyester fiber having an average single fiber fineness of 0.6 to 8.9 decitex, in a mixing ratio of 20:80 to 70:30;

making paper from the dispersed and mixed solution while controlling a flow rate of the dispersed and mixed solution so that the semipermeable membrane support has a ratio of tensile strength in a paper feeding direction to that in a width direction of 2:1 to 1:1; and

heating and pressing the paper so that the semipermeable membrane support has a surface roughness of a front surface is larger than that of a rear surface by 15 % or more after drying.

10. A method of manufacturing a semipermeable membrane support according to claim 9, wherein the step of making paper is performed by using an inclined wire cloth machine.

11. A method of manufacturing a semipermeable membrane including a non-woven fabric containing main fiber and binder fiber, both of which are formed of synthetic resin fine fibers having an average single fiber fineness of 0.6 to 8.9 decitex, the non-woven fabric being manufactured by heating and pressing after

paper making, said method comprising the steps of:

applying a polymer solution to at least one surface of the semipermeable membrane support which has a ratio of a tensile strength in a paper feeding direction to that in a width direction of 2:1 to 1:1;

- 5 roll feeding the semipermeable membrane support to a coagulation and rinsing bath so that the semipermeable membrane support is not bent in a width direction; and

coagulating and rinsing the semipermeable membrane support in the coagulation and rinsing bath.

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